# Recent Progress and Updates from the California Marine Invasive Species Program



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Prevention First September 10, 2008



#### California's Marine Invasive Species Program: Legislative Directives

#### **Marine Invasive Species Act (2003)**

- Management of ballast water while in CA waters
- Report management practices
- Submit to compliance inspections
- Submit Fee (Marine Invasive Species Control Fund)
- Develop & recommend performance standards
- Assess risk from vessel fouling
- Support/Fund research
- Conduct biological surveys
- Compile and analyze data

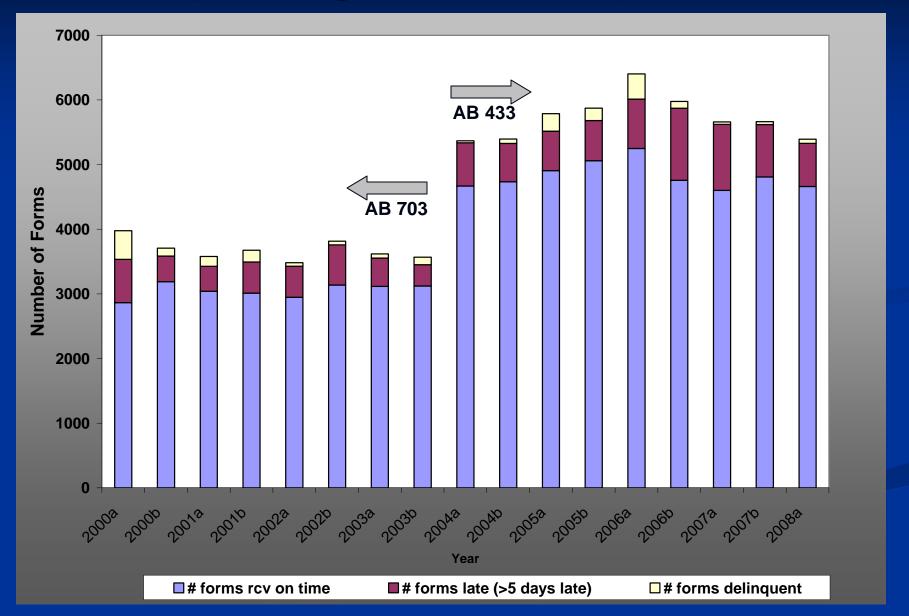
#### **Ballast Water Reporting Requirements**



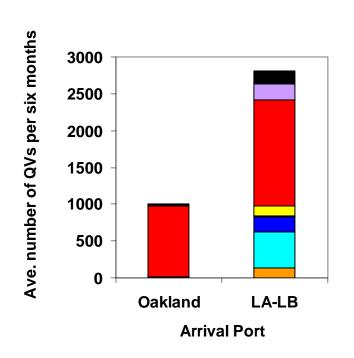
Submit a ballast water reporting form for each port or place of call in CA

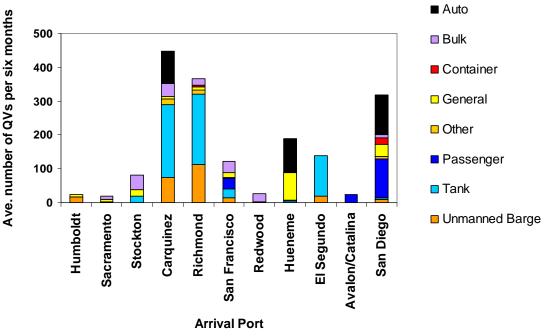


### Reporting Form Compliance

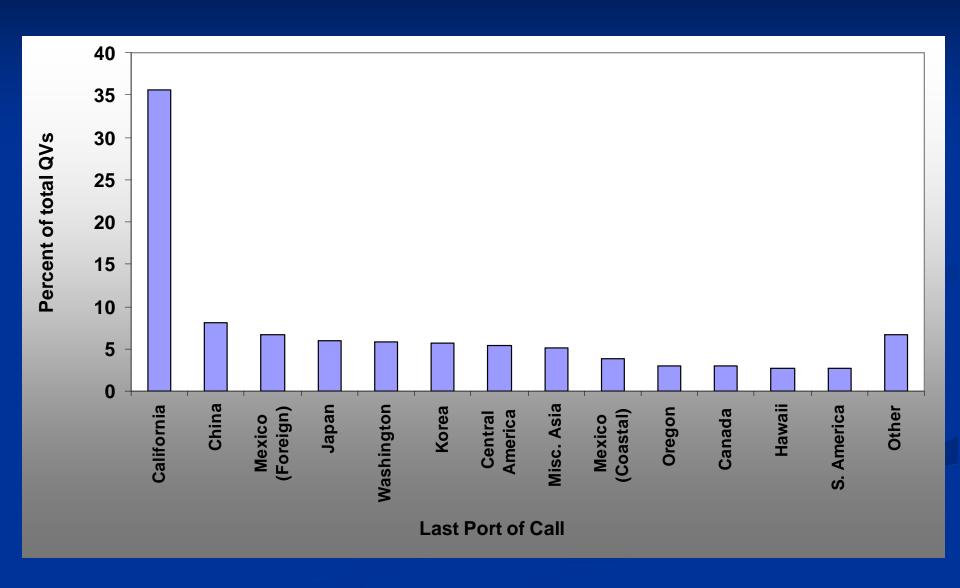


# Average Number of Arrivals to CA Ports by Vessel Type

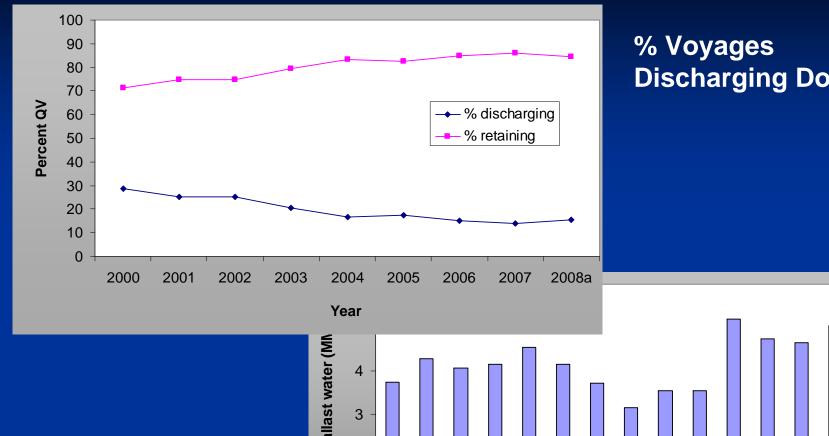




### **Last Port of Call**

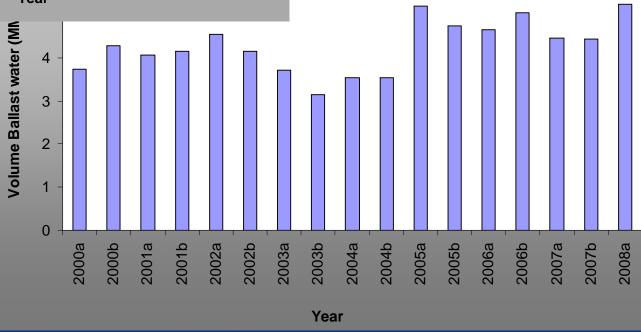


#### Reported Ballast Water Management

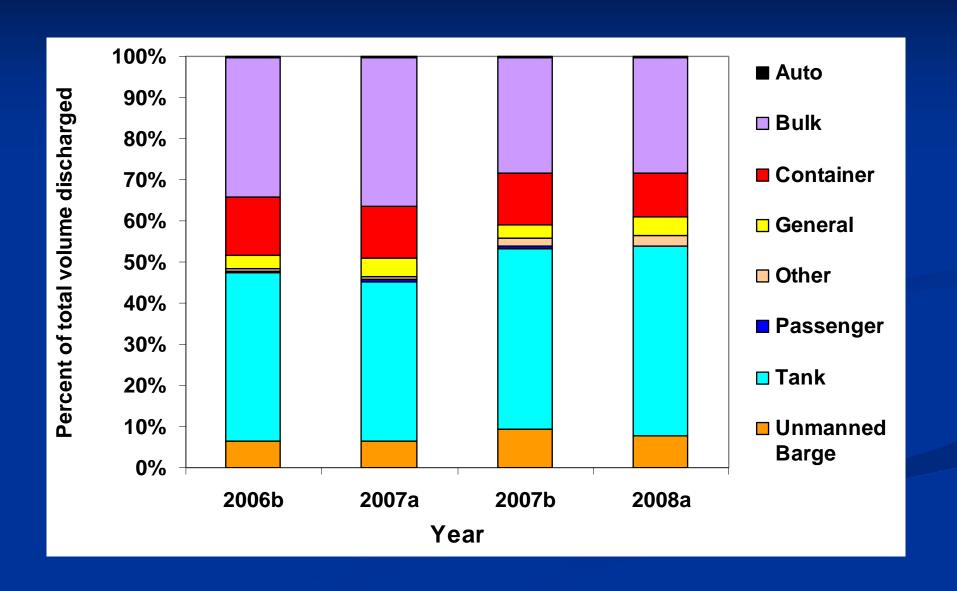


**Discharging Down** 

**Total Volume Discharged UP** 



#### % Discharge Volume by Vessel Type and Year

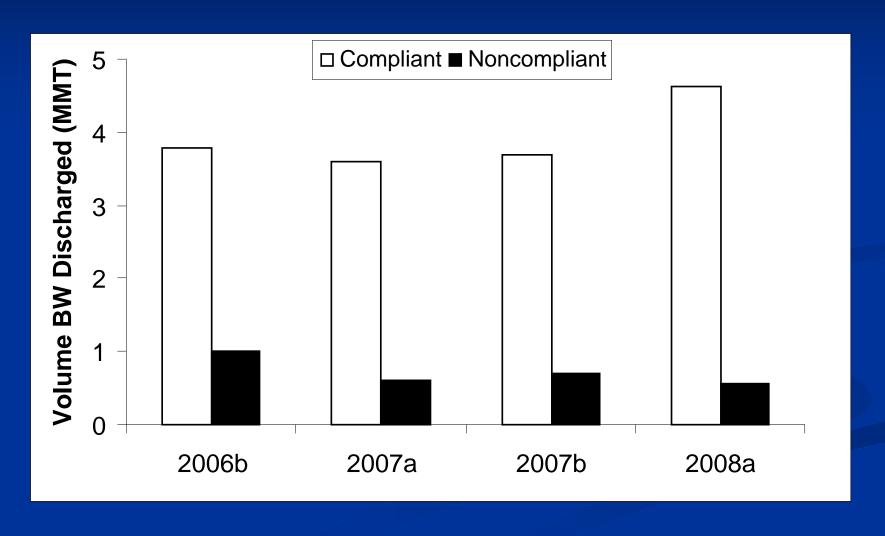


### Compliance

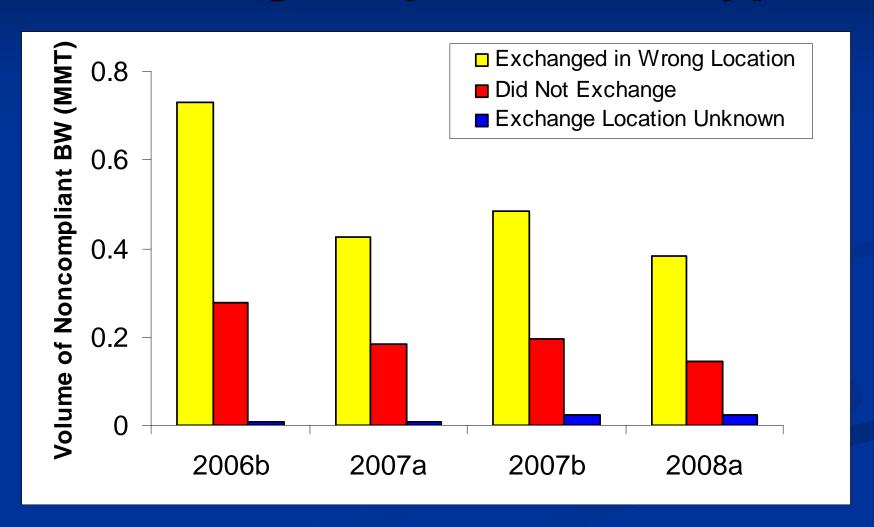
#### Between July 2006 and June 2008:

- Noncompliant BW discharges have decreased 45%
- More than 135 million metric tons\* of ballast water was carried into CA state waters
  - \* = ~54,000 Olympic swimming pools
  - 98% of that water was managed in compliance with the law (either through retention or legal exchange and subsequent discharge)

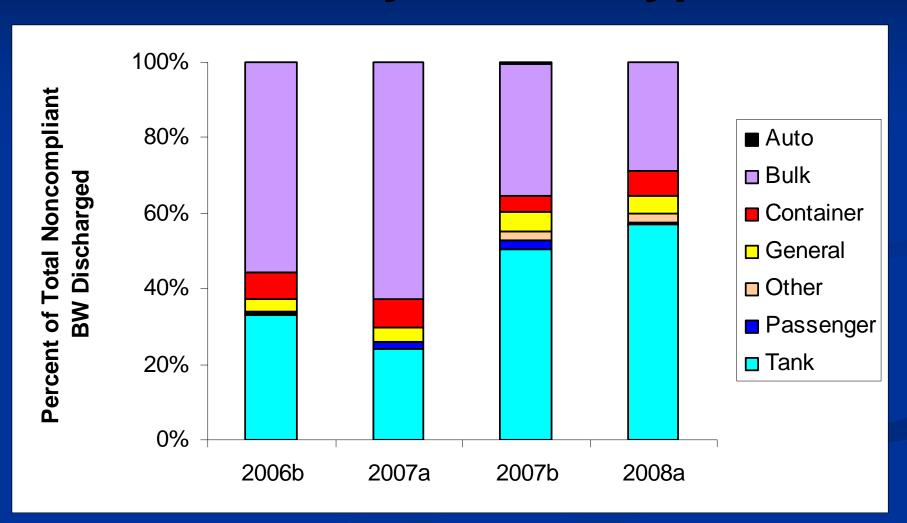
# Compliant and Noncompliant Ballast Water Discharged by Year



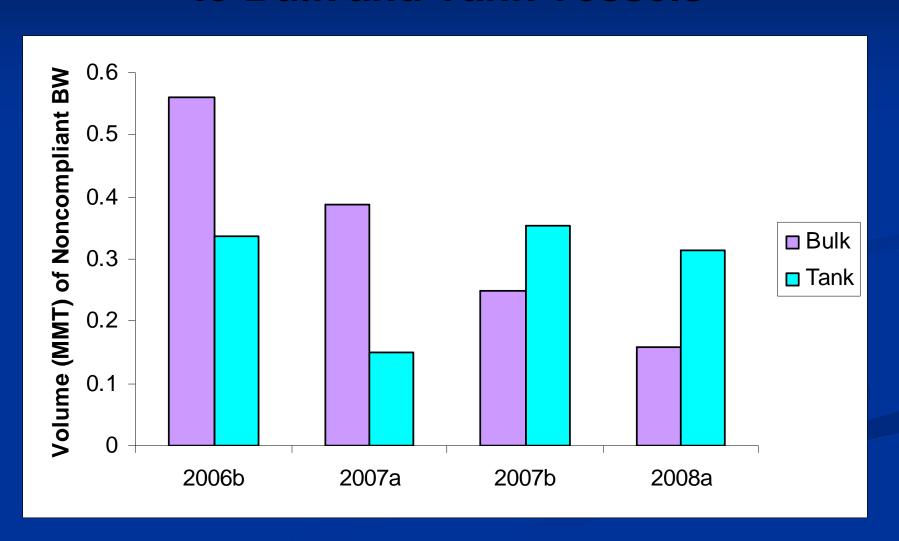
# Volumes of Noncompliant Water Discharged by Violation Type



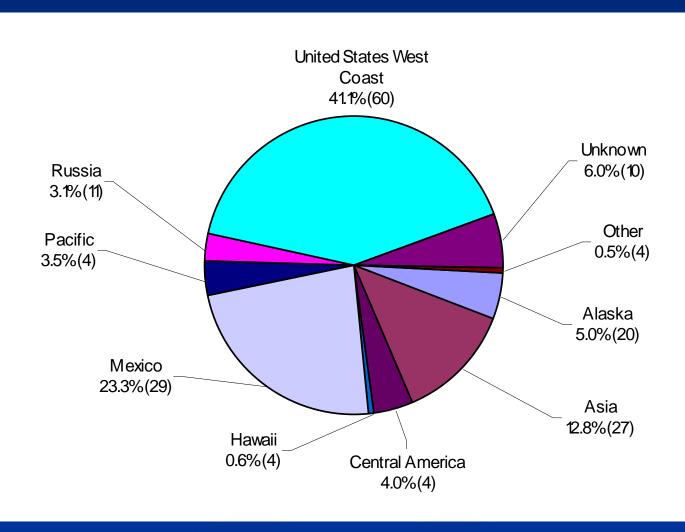
# Proportion of Noncompliant Water by Vessel Type



### Volume of Noncompliant Discharges Attributable to Bulk and Tank Vessels



## Source of Noncompliant Ballast Water



## Marine Invasive Species Program: Recent Activities



# Assembly Bill 740 (2007) amends Marine Invasive Species Act

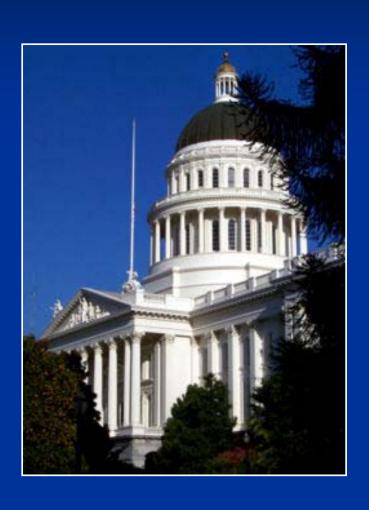


- ✓ Collect, compile and analyze hull husbandry data (in progress)
- ✓ Adopt Hull Husbandry Reporting Form via Regulations (in progress)



✓ Adopt regulations managing vessel fouling (January 2012)

## Assembly Bill 497 (2006) The Ecosystem Protection Act



- ✓ Adopt Regulations on Performance Standards (October 2007)
- ✓ Review the Efficacy, Availability and Environmental Impacts of Available Technologies (December 2007, update in progress)
- ✓ Develop Treatment Technology
   Testing Guidelines and Compliance
   Verification Protocols (in progress)

#### **Funded Technology Development and Research**

#### **CSLC - Matson Navigation**

Installation of treatment technology on the ITB *Moku Pahu* 

#### CSLC - APL

Installation of treatment technology onboard the APL England

#### CSLC - Glosten/CMA

Dockside technology research & testing facility

#### CSLC – Portland State University II

Assessing the risk of invasions from commercial vessel hull fouling

### CSLC - Smithsonian Environmental Research Center

Ballast water exchange verification/BEAM



### **Looking Forward**

- ✓ Biennial Report January 2009
- ✓ Technology Review Report January 2009
- ✓ Senate Bill 1781/Assembly Bill 169 (Fall 2008)
  - ✓ Technology testing guidelines (Fall 2008)
- ✓ Compliance verification protocols (Spring 2009)
  - ✓ More Research







